

(19) World Intellectual Property  
Organization  
International Bureau



544146

(43) International Publication Date  
10 September 2004 (10.09.2004)

PCT

(10) International Publication Number  
**WO 2004/076664 A2**

(51) International Patent Classification<sup>7</sup>: C12N 15/11,  
15/86

(21) International Application Number:  
PCT/US2004/005566

(22) International Filing Date: 23 February 2004 (23.02.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/319,964 21 February 2003 (21.02.2003) US  
60/320,108 15 April 2003 (15.04.2003) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Published:**

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VECTORS FOR REGULATING GENE EXPRESSION

(57) Abstract: The present invention pertains to vectors for regulating gene expression having at least one gene expressing cassette and at least one gene suppressing cassette, wherein the gene expression cassette encodes a polypeptide of interest, and wherein the gene suppressing cassette encodes a short interfering RNA (siRNA) molecule that reduces expression of a target gene by RNA interference. The present invention further includes vectors that contain suppressor cassettes in conjunction with cassettes upregulating gene expression regulated by either a constitutive promoter, such as a general CMV promoter, or a tissue specific promoter. The present invention further includes vectors that contain Dengue virus gene suppression cassettes. The present invention further includes pharmaceutical compositions containing such vectors, methods of modulating the expression of genes in a host using such vectors, and method of producing such vectors.

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